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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/838,197  
Filing Date: April 20, 2001  
Appellant(s): CANNELL ET AL.

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Ningling Wang  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 15, 2005.

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**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of claimed subject matter***

The summary of claimed subject matter contained in the brief is correct.

**(6) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(7) *Prior Art of Record***

|              |             |        |
|--------------|-------------|--------|
| US 5,223,252 | Kolc et al. | 6-1993 |
|--------------|-------------|--------|

|              |               |        |
|--------------|---------------|--------|
| US 5,753,215 | Mougin et al. | 5-1998 |
|--------------|---------------|--------|

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**(8) Evidence of Appendix**

The evidence of Appendix in the brief is correct.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, 9-15, 17-24, 26-32, 34-40, 44-50, 52-59, 61-67, 69-73 and 157-158 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolc et al. (US 5,223,252). This rejection is set forth in the previous office action, mailed on 07/22/2004.

Kolc (US' 252) teaches a mild alkaline reducing composition for permanently waving or reshaping human hair. The composition comprises mercaptan derivatives such as 2-amino-3-mercaptopropic acid, from about 2.0% to about 3.0% of cysteine compound (see col. 4, lines 31-49), amines such as alkanolamine and ammonia, metal hydroxides (see col. 5, lines 65-68) and alcohols such as ethanol and isopropanol (see col. 7, lines 32-33) and other constituents such as fatty alcohols (see col. 6, lines 2-3) and ammonium carbonate (see col. 5, lines 65-66). Kolc teaches all the limitations of the instant claims. Hence, Kolc anticipates the claims.

Claims 6-8, 16, 25, 33, 41-43, 51, 60, 68 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolc et al. (US 5,223, 252) in view of Mougin et al. (US 5,753,215). This rejection is set forth in the previous office action, mailed on 07/22/2004.

The disclosure of Kolc (US' 252) is summarized above. The reference fails to teach a composition comprising organic nucleophiles such as arginine and lysine as claimed in claims 6-8 and 41-43. Further, the reference fails to teach alkali metal salts, alkaline earth metal salts, organic addition salts or inorganic addition salts as claimed in claims 16, 25, 33, 51, 60 and 68.

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Furthermore, the reference does not teach or disclose organic nucleophile in an amount of 0.2% as claimed in claim 74.

However, the reference teaches a composition comprising organic nucleophile such as cysteine compound (see col. 4, lines 31-49). Further, the reference teaches a composition comprising acids, bases and buffers (see col. 7, lines 25-26) that generate the desired salts.

Mougin (US' 215) in analogous art of hair cosmetic composition teaches a hair straightening composition (see col. 6, lines 45-49). The composition comprises organic nucleophiles such as lysine, arginine or cystine and polyvalent metal salts such as chloride, nitrates, acetate, carbonate and sulphates (see col. 4, lines 26-31).

Therefore, in view of the teachings of the secondary reference, one having ordinary skill in the art at the time the invention was made would have been motivated to modify the primary reference by incorporating the lysine, arginine compounds and polyvalent salts as taught by Mougin to make such a composition. Such a modification would be obvious because the primary reference teaches and suggests the use of cysteine, which is a similar compound to cystine as taught by Mougin. Also, the primary reference teaches a composition that comprises acids, bases, buffers and metal hydroxides which all react together to generate the metal salts and, thus, a person of ordinary skill in the art would expect such a composition to have similar properties to those claimed, absent unexpected results.

With respect to claim 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of the nucleophile used in the composition in order to get the maximum effective amount, *See In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

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**(10) Response to Argument**

With respect to the rejection of claims 1-5, 9-15, 17-24, 26-32, 34, 35 and 157 under 35 U.S.C. 102(b) as being anticipated by Kolc et al. (US' 252), the examiner has reviewed appellant's arguments and respectfully disagrees with the counsel's allegations. Specifically, appellants argue that the office has failed to establish that the composition disclosed in Kolc is identical to the claimed composition because Kolc et al. (US' 252) teaches a reducing composition for permanently waving or reshaping human hair and wherein the composition has a pH in the range of about 7.5 to about 9.5 which is not sufficient to lanthionize hair. To support this argument appellants submitted pages from "Milady's Hair Structure and Chemistry Simplified," pp.191-192 to show the differences between chemical relaxers and lanthionization and to indicate that only highly alkaline products such as sodium hydroxide and potassium hydroxide that afford pH levels between 12 and 13.5, can cause lanthionization. The appellants also argue that the composition of Kolc has a different pH than the compositions of the claimed invention. The appellants further argue that Kolc fails to teach a composition that is a pretreatment composition for lanthionizing keratin fibers, which is applied to keratin fibers prior to applying a relaxing composition as claimed.

The examiner's position is such that the arguments are not found persuasive because of the following reasons.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegeaal Bros. v. Union Oil Co. of California*, 824 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim

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is deemed anticipated if any of the structures or compositions within the scope of the claims is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001). In this case Kolc (US’ 252) teaches a mild alkaline reducing composition for permanently waving or reshaping human hair. The composition comprises an organic nucleophile cysteine in the amount presented from about 2.0% to about 3.0% (see col. 4, lines 44-49) and metal hydroxides as claimed (see col. 5, lines 65-68), and, thus, the reference’s composition within the scope of the claims and is known in the prior art as shown above. Therefore, the claims are anticipated by Kolc et al. (US’ 252).

With respect to appellant’s argument that the reference fails to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., the pH values of the claimed composition) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, appellants show on record the criticality of the amounts of the organic nucleophile in the claimed relaxing composition (see specification page 23, Table 2) wherein the organic nucleophile when presented in the amount of 0.1% to 3% leads to greatest relaxing efficiency (100% RE) while a composition that comprises more than 3% of organic nucleophiles leads to lowest relaxing efficiency (60% RE) even at high pH values such as 13.99 or 14.00. Therefore, appellants have not shown on record the criticality of the pH values in the claimed composition or even claimed a relaxing composition with specific range of pH values.

With respect to the appellant’s argument based on document of “Milady’s Hair Structure and Chemistry Simplified,” pp.191-192, the examiner respectfully disagrees with the above

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argument because the same document of "Milady's Hair Structure and Chemistry Simplified," teaches that the low pH reducers are used as the relaxers and are recommended for thin or brittle hair (see page 191, paragraph 5). The document further teaches that lanthionization also interferes with permanent wave procedures (see page 192, paragraph, 6). Therefore, Kolc's composition is capable of lanthionizing the keratin fibers.

With respect to the rejection of claims 36-40, 44-50, 52-59, 61-67, 69-73 and 158 under 35 U.S.C. 102(b) as being anticipated by Kolc et al. (US' 252), the examiner has reviewed appellant's arguments and respectfully disagrees with the counsel's allegations. Specifically, appellants argue that Kolc fails to teach a composition that is a pretreatment composition for lanthionizing keratin fibers, which is applied to keratin fibers prior to applying a relaxing composition as claimed.

The examiner respectfully disagrees with the above argument because in order to constitute anticipatory prior art, a reference must identically disclose the claimed compound, but no utility be disclosed by the reference. *In re Schoenwald*, 964 F.2d 1122, 22 USPQ2d 1671 (Fed. Cir. 1992) (The application claimed compounds used in ophthalmic composition to treat dry eye syndrome. The examiner found a printed publication which disclosed the claimed compound but did not disclose a use for the compound. The court found that the claim was anticipated since the compound and a process of making it was taught by the reference. The court explained that "no utility need be disclosed for a reference to be anticipatory of a claim to an old compound." 964 F.2d at 1124, 22 USPQ2d at 1673. It is enough that the claimed compound is taught by the reference.

Further, the recitation of the intended use of the claimed invention must result in a



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structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case Kolc teaches a hair treating composition comprising an organic nucleophile cysteine in the amount presented from about 2.0% to about 3.0% as an effective amount (see col. 4, lines 44-49) and metal hydroxides as claimed (see col. 5, lines 65-68). Therefore, Kolc's composition is capable of performing the intended use of the claimed composition and, hence, the rejection of the claims under 102 (b) is proper.

With respect to the rejection of claims 6-8, 16, 25 and 33 under 35 U.S.C. 103(a) as being unpatentable over Kolc et al. (US' 252) in view of Mougin et al. (US' 215), the examiner has reviewed appellant's arguments and respectfully disagrees with the counsel's allegations. Specifically, appellants argue that the office has failed to establish a prima facie case of obviousness because neither Kolc nor Mougin teaches a composition for lantionizing keratin fibers. Appellants also argue that Mougin teaches away from using its composition at such a high pH and there is no suggestion or motivation to modify the composition of Kolc by incorporating the lysine, arginine compounds and polyvalent salts disclosed in Mougin.

The examiner's position is such that the arguments are not found persuasive because of the following reasons.

In establishing a prima facie case of obviousness, three criteria must be met. See *in re Vaeck*, 947 F2d. 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). First, there must be some suggestion or

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motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (see MPEP 2143).

In this case the three criteria have been met, because both references are in the same art of hair cosmetic compositions that are used for waving or reshaping the hair as taught by Kolc (see abstract) and also used for styling or shaping hair as taught by Mougin (see abstract). Kolc et al. (US' 252) as primary reference clearly teaches a composition comprising organic nucleophile cysteine ( $\alpha$ -amino- $\beta$ -thiolpropionic acid), a metal hydroxide as a hydroxide ion generator (see col. 4, lines 35-40 and col. 5, lines 65-66) and acids, bases and buffers (see col. 7, lines 25-26) that generates the desired salts. Mougin et al. (US' 215) as a secondary reference in analogous art clearly teaches and discloses the equivalence between organic nucleophiles lysine, arginine and cystine [3,3'-dithiobis(2-aminopropanoic acid)] and also teaches polyvalent metal salts such as chloride, nitrates, acetate, carbonates and sulfates (see col. 4, lines 26-35). Therefore, there is a sufficient motivation to one having ordinary skill in the art to incorporate organic nucleophiles such as lysine and arginine which are equivalent to cystine as a derivative of propanoic acid which is similar to cysteine and polyvalent metal salts such as chloride, nitrates, acetate, carbonates and sulfates as taught by Mougin et al. (US' 215) in the composition of Kolc et al. (US' 252) and would expect that the use of lysine and arginine and the metal salts as taught by Mougin et al. would be similarly useful and applicable to the analogous composition taught by Kolc et al.

With respect to the appellant's argument that Mougin et al. (US' 215) teaches away from

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using its composition at such a high pH, the examiner's position is that, the higher ranges of the pHs have not been recited in any of the instant claims. Furthermore, applicants have not shown on record the criticality of the high pH of the claimed composition over the compositions of the prior art of record. Therefore, the prima facie case of obviousness has been established.

With respect to the rejection of claims 41-43, 51, 60, 68 and 74 under 35 U.S.C. 103(a) as being unpatentable over Kolc et al. (US' 252) in view of Mougin et al. (US' 215), the examiner has reviewed appellant's arguments and respectfully disagrees with the counsel's allegations. Specifically, appellants argue that the office has failed to establish a prima facie case of obviousness because Kolc fails to teach or suggest a composition that is a pretreatment composition for lanthionizing keratin fibers, which is applied to keratin fibers prior to applying a relaxing composition. The appellants also argue that the office has failed to point to any evidence of a suggestion or motivation to modify the composition of Kolc by incorporating the lysine, arginine compounds and polyvalent salts disclosed in Mougin.

The examiner's position is such that the arguments are not found persuasive as explained above and also because of the following reasons.

The recitation "pretreatment composition for lanthionizing of keratin fibers" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In this case Kolc teaches a hair treating composition comprising

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an organic nucleophile cysteine in the amount presented from about 2.0% to about 3.0% as an effective amount (see col. 4, lines 44-49) and metal hydroxides as claimed (see col. 5, lines 65-68). Further, the instant claims are related to a composition and not related to a process that required specific sequence steps for applying different compositions. Therefore, the rejection of the claims under 103(a) is proper.

Accordingly, the office maintains that the examiner has met the burden to establish both anticipation and prima facie showing of obviousness. Viewed as a whole, the invention as claimed would have been anticipated and/or obvious to one of ordinary skill in the art at the time of the invention.

Finally, the Examiner request that this Board when viewing the evidence as a whole, and lacking any secondary indicia of nonanticipation or nonobviousness, affirm the decision of the Examiner in whole.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

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June 8, 2005



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